

**Notice of Allowability**

Application No.

10/034,277

Applicant(s)

MORRIS ET AL.

Examiner

Art Unit

Jean M. Corrielus

2162

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/29/07.
2. ☒ The allowed claim(s) is/are 1,3,4,7-16,18,19,22-34 and 36-43, RENUMBERED 1-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER

### DETAILED ACTION

1. This office action is in response to amendment filed on January 29, 2006, in which claims 1-43 are presented for further examination.

### EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John A. Demos Reg. No. 52,809 on March 1, 2007.

The application has been amended as follows:

#### *In the claim*

- 1 (Currently Amended) A method for allowing a user to define custom metadata schemas, the method comprising the steps of:
  - (a) providing a network accessible server with a metadata library comprising a plurality of metadata schemas;
  - (b) providing information to a client computer for presenting a form-driven user interface that allows the user to specify, without using syntax required by an underlying specification language, a plurality of properties, including constraints supported by the underlying specification language, to thereby define a custom metadata schema;
  - (c) storing the custom metadata schema in the metadata library; and

(d) allowing the user to search the metadata library to select at least one of the metadata schemas to apply to a resource.

2. (cancelled).

10 (Currently Amended) The method of claim 1 wherein step (d) further includes the step of: allowing the user to upload the resource to the server.

11 (Currently Amended) The method of claim 1 wherein step (d) further includes the step of: allowing the user to specify which metadata schemas are required to be associated with particular resource types.

15 (Currently Amended) The method of claim 1 further including the steps of allowing the user to assign a metadata instance to the resource by:

retrieving required metadata vocabularies schemas specified for a resource type of the resource;

merging the retrieved metadata vocabularies schemas and removing duplicate properties;

generating and displaying forms that allow the user to enter data values for the properties;

validating the data values based on vocabulary schema constraints; and

associating the data values with the resource and saving.

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16. (Currently Amended) A computer-readable storage medium containing program instructions for allowing a user to define custom metadata schemas, the instructions for:

(a) providing a network accessible server with a metadata library comprising a plurality of metadata schemas;

(b) providing information to a client computer for presenting a form-driven user interface that allows the user to specify, without using syntax required by an underlying specification language, a plurality of properties, including constraints supported by the underlying specification language, to thereby define a custom metadata schema;

(c) storing the custom metadata schema in the metadata library; and

(d) allowing the user to search the metadata library to select at least one of the metadata schemas to apply to an electronic resource.

17. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Currently amended) The computer-readable medium of claim 16 wherein instruction (b) further includes the instruction of:

(i) allowing the user to define the custom metadata schema from one of the plurality an existing metadata schema.

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23 (Currently amended) The computer-readable medium of claim 22 wherein instruction (b)(i) further includes the instruction of:

(1) allowing the user to search for one of the plurality of metadata schemas by entering search criteria that include schema names and property names;

(2) displaying metadata schemas matching the search criteria; and

(3) allowing the user to select properties from the displayed metadata schemas to add to the custom metadata schema.

24 (Currently amended) The computer-readable medium of claim 16 further includes the instruction of:

allowing the user to supply a software validator to enforce constraints beyond the constraints supported by the underlying specification language, wherein the software validator is called when metadata associated with the schema is created or changed, but after constraints enforced by the specification language have been verified.

25 (Currently Amended) The computer-readable medium of claim 16 wherein instruction (d) further includes the instruction of: allowing the user to upload the resource to the server.

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26 (Currently Amended) The computer-readable medium of claim 16 wherein instruction (d) further includes the instruction of: allowing the user to specify which metadata schemas are associated with particular resource types.

27 (Currently Amended) The computer-readable medium of claim 26 wherein instruction (d) further includes the instruction of:

(i) associating user account information with the resource type and required metadata schema information; and

(ii) automatically applying required metadata schemas specified for the type of resource when the server receives the resource by checking the user's account and retrieving the required metadata schemas specified for the resource type.

30 (Currently Amended) The computer-readable medium of claim 16 further including the instructions of allowing the user to assign a metadata instance to the resource by:

retrieving metadata schemas specified for the resource type of the resource; merging the retrieved metadata schemas and removing duplicate properties;

generating and displaying forms that allow the user to enter data values for the properties;

validating the data values based on schema constraints; and associating the data values with the resource and saving.

31 (Currently Amended) A metadata management system, comprising:

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a server in communication with the client computers over a network with a plurality of client computers each storing respective resources, the server including:

a metadata library containing a plurality of metadata schemas, each metadata schema comprising a plurality of properties and constraints on values for the properties have; and

a Web application for providing form information to a user computer for presenting a form-driven user interface that allows the client to specify, without using syntax required by an underlying specification language, a plurality of properties, including constraints supported by the underlying specification language, to thereby define a custom metadata schema for storage in the metadata library, wherein the web application allows the user to search the metadata library to select at least one of the metadata schemas to apply to a resources.

32 (Currently Amended) The system of claim 31 wherein the web application further functions to allow the user to upload one of the resources to the server, wherein the selected metadata is applied to the resource.

33 (Currently Amended) The system of claim 31 wherein the server includes management capabilities that allows the user to define metadata schemas, add references to the library to metadata schemas existing external to the metadata library, and set user permissions for the metadata schemas in the library.

35 (Cancelled)

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36 (Currently amended) The system of claim 31 wherein Web application allows the user to define the custom metadata schema from one of the plurality of metadata schemas.

37 (Currently Amended) The system of claim 36 wherein the Web application allows the user to define the custom metadata schema from one of the plurality of metadata schemas by:

allowing the user to search for one of the plurality metadata schemas by entering search criteria that include schema names and property names,;

displaying metadata schemas matching the search criteria; and

allowing the user to select properties from the displayed metadata schemas to add to the custom metadata schema.

38 (Currently Amended) The system of claim 31 further including a software validator running on client appears to enforce constraints beyond the constraints supported by the underlying specification language, wherein the software validator is called when metadata associated with the schema is created or changed, but after constraints enforced by the underlying specification language have been verified.

39 (Currently Amended) The system of claim 31, wherein the user is allowed to specify which metadata schemas are associated with particular resource types.

40 (Currently Amended) The system of claim 39, wherein the Web application associates user account information with the resource type and required metadata schema information, and to



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the required metadata schemas specified for the type of resource are automatically applied when the server receives the resource by checking the user's account and retrieving the metadata schemas specified for the resource type.

43 (Currently Amended) The system of claim 31 wherein the user is allowed to assign a metadata instance to the resource by:

- retrieving metadata schemas specified for said resource type of the resource;
- merging the retrieved metadata schemas and removing duplicate properties;
- generating and displaying forms that allow the user to enter data values for the properties;
- validating the data values based on schema constraints; and
- associating the validated data values with the resource and saving.

**Allowable Subject Matter**

3. The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1, 3-4, 7-16, 18, 19, 22-34 and 36-43 are allowable in light of the applicant's arguments and in light of the prior art made of record.

**Reason For Allowance**

4. The following is an examiner's Statement of Reasons for Allowance: The present invention is directed to a system a method for providing an online library of metadata vocabularies, which allows users to create custom vocabularies using a form driven interface without needing to understand an underlying semantics and syntax of the schema language (specification, page 7, lines 2-5). The closest prior art, Lennon et al., (US Application

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Publication no. 2003/0018607) is directed to a similar system for a metadata server associated with each content provider for receiving and interpreting a request for descriptions whereabouts it accesses information on the multimedia items in response to request, wherein the data is then formatted according to a predetermined scheme and sent back to the requester. The metadata is stored in an XML repository, a media browser provide access to the metadata stored in the repository, In the case where access to a non-XML repository, here called a legacy database 210, and operates through a server module called a metadata serve. The metadata server is typically located, though not necessarily, at the site of the metadata and is configured and controlled by the owner of the metadata. The purpose of the metadata server is to effectively translate the metadata stored in a legacy database to the format required by media browser. In other words, the metadata server should preferably provide access to one or more schemas for the metadata and dynamically generate XML descriptions that conform to these schemas. Typically, a metadata server needs only to provide schema definitions that describe the structure/syntax of the metadata collection, and the structure/syntax of the individual descriptions stored in the legacy database. These schema definitions contain in one or more XML Schema documents. However, Lennon either singularly or in combination, fails to anticipate or render obvious the recited features “providing an online library of metadata vocabularies, which allows users to create custom vocabularies using a form driven interface without needing to understand an underlying semantics and syntax of the schema language”. These features, in conjunction with all other limitations of the dependents and independent claim renders claims 1, 3-4, 7-16, 18, 19, 22-34 and 36-43 allowable.

Since allowable subject matter has been indicated, applicant is encouraged to submit

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formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".


#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jean M. Corrielus  
Primary Examiner  
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March 12, 2007